

DOCUMENT RESUME

ED 407 005

JC 970 189

AUTHOR Cox, Charlotte; And Others
TITLE Balancing Innovation and Tradition To Create Learning Opportunities for All Learners.
PUB DATE Feb 97
NOTE 8p.; In: Walking the Tightrope: The Balance between Innovation and Leadership. Proceedings of the Annual International Conference of the Chair Academy (6th, Reno, NV, February 12-15, 1997); see JC 970 185.
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Style; Community Colleges; *Faculty Development; Inservice Teacher Education; Instructional Effectiveness; *Instructional Improvement; Learning Strategies; Learning Theories; Teacher Effectiveness; Teaching Methods; Two Year Colleges
IDENTIFIERS *4MAT System

ABSTRACT

In an effort to improve instruction and give greater attention to teaching techniques that accommodate different learning styles, Nevada's Truckee Meadows Community College (TMCC) implemented the 4MAT System Fundamental Training for faculty. The 4MAT System identifies four major learning styles (i.e., learners who are primarily interested in personal meaning, those interested in facts, those interested in how things work, and those interested in self-discovery) and recommends that learners be taught in all four styles. The System is designed to move learners through an eight-step natural cycle of learning, in which students experience a problem-solving activity before receiving instruction, students reflect on that experience, the concept to be taught is introduced in relation to students' personal experience, instruction is provided on the concept, hands-on activities are provided for practice, students experiment with related ideas, feedback is provided, and students share with others. As a result of the 4MAT training, the college has witnessed increased networking among faculty, while faculty report a newfound enthusiasm for teaching and successes with students. There are also certified 4MAT system trainers on campus, allowing the college to offer the techniques to staff and community members indefinitely. (TGI)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

*BALANCING INNOVATION AND TRADITION
TO CREATE LEARNING OPPORTUNITIES
FOR ALL LEARNERS*

By

Charlotte Cox
Tutor Coordinator

Cindee Davis
Instructor, Math

Gail Ferrell
Instructor, Math

Marilynn Schenk
Reading Specialist

Truckee Meadows Community College
Reno, NV

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

G. Filan

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC).

Paper Presented at the
Sixth Annual International Conference for
Community & Technical College Chairs, Deans, and Other Organizational Leaders
February 12 - 15, 1997
Reno, Nevada



ACADEMY

Presenters' biographical sketches:

Cindee Davis

Community College Math Professor, Truckee Meadows Community College
Received 4MAT Fundamental, Intermediate, Assessment Trainings, and Advanced
Training and teacher certification
B.S. in Math and Art, M.S. in Mathematics.
Extensive study in Cooperative Learning. Teaching classes in Mathematics and the
4MAT System Fundamental Training.
Always interested in what works best for students

Charlotte A.Cox

Community College Tutor Coordinator at Truckee Meadows Community College for 10
years, College Success Instructor. Specializes in learning styles, effective teaching
techniques, and retention strategies.
M.A. in Speech Communication, University of Nevada, Reno
Certified 4MAT Trainer, Certified "Right to Succeed" Trainer

Gail Small Ferrell

Community College Math Professor, Truckee Meadows Community College
M.A. in Teaching of Mathematics, University of Nevada, Reno,
M.A. in Counseling and Educational Psychology, UNR
Certified 4MAT Trainer, Certified "Right to Succeed" Trainer,
Outstanding Teacher of the Year at TMCC in 1994
Research: The Effectiveness of Group work on Student Grades and Retention for
College Math Students, 1992

Marilynn Schenk

Reading Specialist , Communication Department, Truckee Meadows Community
College. Teaches reading and English classes. Also teaches ESL and Developmental
Writing
B.A. in Music, M.A. in Reading , and TESL Certificate from University of California,
Santa Barbara. Accomplished pianist.
Completed 4MAT Fundamental, Intermediate, and Assessment Trainings

Balancing Innovation and Tradition to create Learning Opportunities for all Learners

A presentation featuring the 4MAT System Natural Cycle of Learning
Presenters: Cindee Davis, Charlotte Cox, Gail Ferrell, Marilyn Schenk

Why 4MAT fired our enthusiasm to learn a new teaching format at Truckee
Meadows Community College (TMCC)?

About the time that the 4MAT System came to our attention at TMCC, we were being urged by an accreditation team to give greater attention to techniques that accommodate different learning styles. This recommendation and the strong interest on the part of the faculty to improve instruction motivated an enthusiastic response to having 4MAT System Fundamental Training on campus.

The participating faculty discovered what experts like psychologists Carl Jung and Kurt Lewin, educator John Dewey, organizational psychologist David Kolb, and personnel trainer David Merrill had to say about learning styles and how to capitalize on the strengths of different learning styles to provide a richer educational environment for our students. Bernice McCarthy created the 4MAT System after noting the similarities in the research about learning styles. She discussed the similarities and connections with other researchers and focused on the ramifications of those connections for educators and trainers. The 4MAT System, including books and workshops, came from this synthesis of research and discussion. The 4MAT Natural Cycle of Learning moves the learner from "experiencing to reflecting, to conceptualizing, to tinkering and problem solving, to integrating new learning into the self". [McCarthy, The 4MAT System, p 60]

Our presentation is designed to give the participants an opportunity to experience 4MAT and 4MAT lessons. We will offer activities that illustrate elements of 4MAT in a concrete, experiential way. We will also demonstrate activities used in English and Reading classes, a Math class, and for career awareness in a College Success course. This presentation addresses the following issues highlighted at the 1997 Chair Academy conference: Teaching and learning, Professional development, and Diversity.

What is 4MAT?

EXCEL, Inc., publishers and consultants for the 4MAT System, recommended that I use their own words to describe the elements of 4MAT to complete this section of the paper. Most of the following information comes from EXCEL's website. (www.excelcorp.com)

Major Premises of 4MAT

Human beings perceive experience and information in different ways.
Human beings process experience and information in different ways.
The combinations formed by our own perceiving and processing techniques form our unique learning styles

There are four major identifiable learning styles.
They are all equally valuable.
Learners need to be comfortable about their own unique learning styles.

Type One Learners are primarily interested in personal meaning. Teachers need to Create a Reason.

Type Two Learners are primarily interested in the facts as they lead to conceptual understanding. Teachers need to Give Them Facts that deepen understanding.

Type Three Learners are primarily interested in how things work. Teachers need to Let Them Try It.

Type Four Learners are primarily interested in self discovery. Teachers need to Let Them Teach It to Themselves and Others.

All learners need to be taught in all four ways, in order to be comfortable and successful part of the time while being stretched to develop other learning abilities.

All learners will "shine" at different places in the learning cycle, so they will learn from each other.

The 4MAT System moves through the learning cycle in sequence, teaching in all four modes and incorporating the four combinations of characteristics. The sequence is a natural learning progression.

Each of the four learning styles needs to be taught with both right- and left-mode processing techniques.

The right mode dominant learners will be comfortable half of the time and will learn to adapt the other half of the time.

The left mode dominant learners will be comfortable half of the time and will learn to adapt the other half of the time.

From The 4MAT System: Teaching To Learning Styles With Right/Left Mode Techniques, by Bernice McCarthy, copyright 1980, 1987 by EXCEL, Inc. Used by special permission. Not to be further reproduced without the express written permission of EXCEL, Inc. Those desiring a copy of the complete work for further reading may acquire it from the publisher, EXCEL, Inc., 23385 Old Barrington Road, Barrington, IL 60010, 1-800-822-4MAT or 1-847-382-7272

The development and integration of all four styles of learning and the development and integration of both right- and left-mode processing skills should be a major goal of education.

Learners will come to accept their strengths and learn to capitalize on them, while developing a healthy respect for the uniqueness of others, and furthering their ability to learn in alternative modes without the pressure of "being wrong."

The more comfortable they are about who they are, the more freely they learn from others.

Following are a few examples of each of the eight steps that EXCEL specifies as the **Natural Cycle of Learning**:

Step 1 - QUADRANT ONE, RIGHT MODE

Captures students' attention. Initiates a group problem-solving activity before delivery of instruction. Begins with a situation that is familiar to students and builds on what they already know. Constructs a learning experience that allows for diverse student responses.

Step 2 - QUADRANT ONE, LEFT MODE

Guides students to reflection and analysis of the experience in Quadrant 1, Right mode. Students share their perceptions and beliefs. Summarizes and reviews similarities and differences.

Step 3 - QUADRANT TWO, RIGHT MODE

Deepens the connection between the concept and its relationship to the students' lives. Keeps relating what the students already know what experts have found. Uses another medium(not reading or writing) to connect the students' personal knowing to the concept (i.e. visual arts, music, movement, etc.) Transforms the concept yet to be taught into an image or experience, a "sneak preview" for the students.

Step 4 - QUADRANT TWO, LEFT MODE

Provides information related to the concept through lecture, text, guest speakers, films, visuals, computer-assisted instruction etc. Emphasizes the most significant aspects of the concept in an organized, organic manner. Presents information sequentially so students see continuity.

From The 4MAT System: Teaching To Learning Styles With Right/Left Mode Techniques, by Bernice McCarthy, copyright 1980, 1987 by EXCEL, Inc. Used by special permission. Not to be further reproduced without the express written permission of EXCEL, Inc. Those desiring a copy of the complete work for further reading may acquire it from the publisher, EXCEL, Inc., 23385 Old Barrington Road, Barrington, IL 60010, 1-800-822-4MAT or 1-847-382-7272

Step 5 - QUADRANT THREE, LEFT MODE

Provides hands-on activities for practice and mastery. Checks understanding of concepts and skills by using relevant standard materials, readily available in school texts. Uses concept of mastery learning to determine if re-teaching is necessary.

Step 6 - QUADRANT THREE, RIGHT MODE

Encourages and provides for tinkering with ideas/relationships/connections. Sets up situations where students have to find the information not readily available in school texts. Provides the opportunity for students to design their own open-ended explorations of the concept. Requires students to organize and synthesize their learning in some personal, meaningful way.

Step 7 - QUADRANT FOUR, LEFT MODE

Gives guidance and feedback to students' plans; encouraging, refining, and helping them to be successful. Helps students analyze their use of the learning for meaning, relevance, and originality. Summarizes by reviewing the whole, brings the student full circle back to the experience with which the learning began. Students edit, refine, rework, and analyze their own effectiveness.

Step 8 - QUADRANT FOUR, RIGHT MODE

Supports students in learning, teaching, and sharing with others. Leaves students wondering (creatively) about further possible applications of the concept, extending the "what ifs" into their future. Establishes a classroom atmosphere that celebrates the sharing of learning.

The 4MAT System includes an understanding of the elements and importance of right and left mode preferences.

A sampling of Right and Left Mode Characteristics

LEFT MODE

- *Responds to verbal instructions
- *Controlled, systematic experiments
- *Solving problems logically, sequentially
- *Makes objective judgments
- *Looks at differences
- *Is planned and structured
- *Analytic reader

RIGHT MODE

- *Responds to demonstrated instructions
- *Open-ended, random experiments
- *Problem solving with hunches, patterns
- *Makes subjective judgments
- *Looks at similarities
- *Is fluid and spontaneous
- *Synthesizing

From The 4MAT System: Teaching To Learning Styles With Right/Left Mode Techniques, by Bernice McCarthy, copyright 1980, 1987 by EXCEL, Inc. Used by special permission. Not to be further reproduced without the express written permission of EXCEL, Inc. Those desiring a copy of the complete work for further reading may acquire it from the publisher, EXCEL, Inc., 23385 Old Barrington Road, Barrington, IL 60010, 1-800-822-4MAT or 1-847-382-7272

How has 4MAT affected faculty at TMCC?

Many part-time and full-time instructors from almost every discipline have received 4MAT training. Those who have participated report having a feeling of greater understanding of, connection to, and appreciation for other participating faculty. There is more networking among the faculty than has been seen before. We are experimenting with the application of 4MAT in our classrooms. Many teachers are experiencing newfound enthusiasm for teaching and reporting success in how their students are responding. There is a 4MAT support group at TMCC which meets regularly to share ideas and activities. We are looking forward to receiving software that will enable us to keep a database of lesson plans to use as examples and ideas for other teachers.

EXCEL has a research department which is documenting the successful application of 4MAT to all levels of education and in all disciplines. Worldwide proponents of 4MAT have created discussion and support groups on the internet, so techniques and information can be shared in an international community. Some of us are communicating regularly with other teachers in this group.

What are the possibilities for TMCC as we continue to explore the use of 4MAT on campus?

We have certified trainers on campus who are authorized to teach classes on the 4MAT System. We can offer this framework of educational techniques to our own staff and to members of our community indefinitely. An Administrator's Workshop will take place at TMCC in February, 1997. Participating administrators will have the opportunity to more fully understand the new teaching paradigm taking the college by storm. Administrators will also benefit from the 4MAT System in fulfilling their duties as they interact with others and design their organizational plan.

We hope that as more teachers learn and apply the principles of the 4MAT System Natural Cycle of Learning, we will continue to have greater positive impact on more students and enjoy more networking among the faculty.

4MAT and EXCEL are federally registered trademarks of EXCEL, Inc.